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Amendment filed April 7, 2000 except that it incorporates the original Prince Supplemental Declaration **Exhibit A** (yellow tab) thereto.

In this supplemental amendment, amendment of claims 44-46, 49, 53, 55, 57-58, 60, 62-63, 65, 72, 78, 82, 86 and 87 comply with Rule 121(b)(2)(i)(c).

As the examiner has requested that Claim 49 be made independent, an extra fee of \$78.00 has previously been paid for in the amendment submitted April 7, 2000.

The draftsman has made objections to the drawings, which are no more than copies of the drawings of the issued patent. A letter to the Patent Office Draftsman requesting transfer of the drawings from the '363 patent file history is submitted herewith under separate cover. The decision of the prior draftsman as to the adequacy of the drawings should be accepted. Ex Parte Hampton, et al., 35 U.S.P.Q. 169, 170 (Bd. App., 1937).

Attached as exhibits hereto are six exhibits: **Exhibit A** (yellow tab) is a copy of a supplemental declaration of Raymond J. Prince executed March 15, 2000 (the original was submitted with the Amendment filed April 7, 2000); **Exhibit B** (dark yellow tab) is a colored copy of U.S. Patent No. 5,960,713 to indicate which portions can be traced and which portions cannot be traced to Ser. No. 08/435,798; **Exhibit C** (orange tab) is Ser. No. 08/435,798 as filed May 4, 1995, color highlighted to show the portions in common with U.S. Patent No. 5,960,713; **Exhibit D** (red tab), is a copy of Pennwalt Corp. v. Akzona, Inc., 570 F. Supp. 1097 (D. Del. 1983); **Exhibit E** (light green tab) is a Joint Declaration (1) Under 37 C.F.R. §1.131 and (2) Pertaining to Derivation by Howard W. DeMoore and Printing Research, Inc. of Reissue Applicants' invention; and **Exhibit F** (dark green tab), Second Supplemental Declaration of Raymond J. Prince.

I.

The Reissue Declaration

Reissue Applicants have indicated their U.S. nationality (37 C.F.R. §1.63(a)(3)) and have supplemented their Reissue Declaration, submitted on even date. Applicants traverse the rejection of their claims under 35 U.S.C. §251, as the existing Declaration already conformed to new 37 C.F.R. §1.175(a), amended in late 1997, that reissue applicants no longer have to

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indicate how each error arose, when it was discovered, and that in the absence of correction the patent is fatally defective, etc., (formerly required of old 37 C.F.R. §1.175(c)-(f)):

"(a) The reissue oath or declaration in addition to complying with the requirements of §1.63, must also state that:

(1) The applicant believes the original patent to be wholly or partly inoperative or invalid by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than the patentee had the right to claim in the patent, stating at least one error being relied upon as the basis for reissue; and

(2) All errors being corrected in the reissue application up to the time of filing of the oath or declaration under this paragraph arose without any deceptive intention on the part of the applicant."

37 C.F.R. §1.175(a) (December 1, 1997). Applicants Reissue Oath executed May 20, 1999 stated adequately in compliance with the new rule:

"Petitioners verily believe that because of what might be deemed errors on the specification and claims of U.S. Pat. 5,630,363, that said '363 patent might be inoperative or invalid ...

"Petitioners declare that all of these errors sought to be corrected arose through their unfamiliarity with U.S. patent practice, and/or through inadvertence, and were all without any deceptive intention. Petitioners seek to correct these errors through amendments to their specifications and claims, and endorse the Amendments set forth in Exhibit "A" hereto."

37 C.F.R. §1.175 (December 1, 1997) required nothing more. Applicants, however, supplement their declaration in ¶2 with the language suggested by the Examiner, haec verba. Their Amended Reissue Declaration was submitted April 7, 2000.

The Examiner suggested at the top of page 3 that "three separate declarations" might be combined. Only the Reissue Declaration is a declaration by the inventors for which Rule 175 applies. It is a required document to be submitted by the reissue applicant. 37 C.F.R. §1.172(a), first sentence and 37 C.F.R. §1.175 (December 1, 1997). Reissue applicants had, on the filing date, submitted through counsel a Memorandum entitled "Application for Reissue of U.S. Pat. 5,630,363 under 35 U.S.C. §251 and 37 C.F.R. §1.171", which is in the form of information and argument that put the objects of the reissue application in some perspective. The Declaration and

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Power of Attorney is a document by the assignee of reissue applicants. Documents such as these - in former times called "Assent of Assignee to Reissue" is required separately by the Rules . 37 C.F.R. §1.172(a), last sentence. Applicants respectfully submit that combining the three documents would be unwieldy and improper.

II.

Objections to the Specification

Reissue applicants note the Examiner's objections to the Specification at col. 3, line 59 and col. 4, lines 46-49. Stenographical amendment has been made to correct the first objection, and the second objection is cured by rewriting the sentence involved, consistent with the existing language at col. 3, line 13-18 of the cut-up specification and avoiding new matter. Amendments are made in conformance with 37 C.F.R. §§1.121(b)(1)(i) - 1.121(b)(1)(iii).

III.

Rejections Under 35 U.S.C. §112, 2d par., or 37 C.F.R. §1.75(a)

Correction of Claims 12, 19-20, 22, 44-46, 49, 53, 55, 57-58, 60, 62-63, 65, 72, 78, 82, and 85-87 are made in the format suggested/hinted at by the Examiner. The typographical errors in Claim 57, line 3 of "flexography" and newly presented Claim 78, line 1 of "77urther" are corrected.

The term "thin controlled layers" (and the like) in newly presented Claims 44-46, 49, 53, 55, 58, 60, 82 and 86 are changed with the term "images" which appears often in the specification, although the terms are equivalent. **See Supplemental Declaration of Raymond J. Prince, ¶10, Exhibit A** (yellow tab) hereto. Claim 12, subparagraph (4) has been corrected consistent with the clarification of the specification at col. 4, lines 46-51 above. Newly presented Claim 49 has been amended to be in independent form, as suggested by the Examiner, and an additional fee was paid April 7, 2000. The alleged ambiguities in '363 issued Claims 19, 20, 21 and counterpart newly presented perfecting Claims 62, 63 and 65 have been corrected. Newly presented Claim 85 has been corrected to include a specific recitation of flexography in the body of the claim. The alleged disparity and apparent ambiguity in newly presented Claim 87 of "and" versus "or" has been eliminated. Claim 57 has been amended to be singular concerning "each flexographic station" to remedy the antecedent basis rejection.

Accordingly, all existing claims 1-87 are seen to be in conformance with 35 U.S.C. §112, 2d par. and 37 C.F.R. §1.75(a).

IV.
**Rejection of Claims 42-87 Under
35 U.S.C. §112, 2nd par and 35 U.S.C. §251, fourth par.**

Claims 42-87 are, indeed supported by the specification, not only with respect to the mention of "perfect[ion]" at col. 2, lines 54-55, but the teaching of "over" in the specification at col. 4, lines 29 and 43. As stated by expert Prince in his original May 20, 1999 declaration testimony:

"2. I have been asked to review U.S. Patent 5,560,363 and give my opinion as to its teachings to one of ordinary skill in the printing arts, and to respond to specific questions concerning (1) the teaching of the sentence of col. 1, line 54-55 ("Many sheet fed presses can perfect (print both sides of the paper) in one pass through the press") as that sentence impacts the scope of the invention taught to the printing artisan, and (2) the correct interpretation of the term "over" in the specification and claims.

3. Regarding U.S. Patent No. 5,630,363 and the use of the word 'over', I would like to offer the following thoughts: The word 'over' when used in the Graphic Arts industry has many meanings. In the patent it is used in two ways, namely (First) one ink printing over (on top of) another ink, coating, colorant, or coating being printed on both sides of the sheet or substrate. Specifically, as of August 14, 1995 - and the same is true today - the term 'over' means to one of ordinary skill in the printing art reading the '363 patent either "on top of" (i.e., the same side of) the substrate, or paper, or by the reference in the paragraph at col. 2, lines 49-58 to the term "perfect" with respect to offset lithography, printing on the reverse side. The claims which refer to printing in a subsequent station 'over' an image previously printed means unequivocally either "on top of" or "the reverse side of" To amplify the points I offer the following:

(1) In the first meaning we commonly use the word over when describing overprinting or what a printer would call trapping of an ink. The term refers to the transfer of a coating, ink, or other colorant to the surface of another coating, ink or substrate. The coating ink, or colorant may be wet or dry. This term has been in common usage since at least 1920 in this regard and very possibly earlier.

(2) In the second meaning of the word over describes the printing of a coating, ink, or colorant on both sides of the paper or substrate during one pass on a printing press. This can be accomplished in many ways: (a) the use of a blanket to blanket web press, (b) the use of a double ending hardback web press, (c) the use of a perfecting unit placed anywhere on a sheet fed press,

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(d) the use of a back printer on a sheet fed press located on any unit of a sheet fed press. The term in this case has been in use since 1880 in this regard and possibly earlier.

4. The term 'perfect' or 'perfecting' in the art teaches one skilled in the art several options of printing on both sides of the substrate. One option is to 'tumble' the substrate in order to print on the reverse side. I enclose as Exhibit B several literature references concerning 'perfect' or 'perfecting.'

5. As I read the '363 patent, it covers all of the various ways a printer would apply a coating, ink or colorant to another ink, colorant, or substrate to form an image." (Emphasis supplied)

The Examiner confuses the terms "over" – which includes both (a) overprinting – printing on the same side *as previously printed*, and (b) printing on the reverse side, e.g., by tumbling the substrate to be printed. See testimony of Prince, supra. Unlike DeMoore, et al. EP741,025 (which teaches overprinting, but not perfection), reissue applicants teach perfection haec verba at col. 2, line 54 and by the use of "over" at col. 4, lines 38 and 43, col. 6, line 64, col. 7, line 12 and 31, etc. Overcoating is also taught by reissue applicants (col. 5, line 2, col. 5, line 18, col. 7, lines 15-23, even with the words "on top of" (col. 5, line 24, col. 7, line 58). As Prince testifies in his **Supplemental Declaration, Exhibit A** (yellow tab) hereto, at ¶¶3-9:

"3. I have received a portion of an office action in the captioned application and understandings dated February 8, 2000, attached hereto as Exhibit A. I have also reviewed reissue applicants claims as filed 1-87, Exhibit B. **For the reasons that follow in paragraphs 4-10 below, I disagree with the examiner's conclusions in Exhibit A, and conclude claims 1-87 are supported by the specification of '363 patent being reissued.**

"4. The terminology of the printing industry has gone through many changes in the past 500 years, it can get a bit complex to the lay person with words having many meanings depending on how they are used.

(A) Perfecting means to print on both sides of the sheet or web in on pass through the press. Most web presses sold today and in the last 20 years are perfecting presses. These presses operate using a blanket to blanket cylinder approach. Therefore every time the word web is used in '363 patent it means a perfecting process.

(B) Press manufacturers will refer to a perfecting press by the number of colors, and where the perfecting unit is. A 6-color press with the perfecting unit between units 2 and 3 would be referred to as a 2 over 4 unit. It can print 2 colors and turn the sheet and print 4 more colors. One

can purchase 1 over 5 presses as well as 2 over 2 presses and just about every combination one can think of.

(C) Another way of expressing the above (B), is to describe a 6-color press with a perfecting unit between units 2 and 3 would be to state is as a 2/4 press.

"5. The term "single in-line continuous printing process" in the '363 patent also refers to a perfecting press. A prime example is a web offset press that begins with a roll of paper and ends with a folded signature of final product. It may also refer in a sheet fed plant to a perfecting press in which unprinted paper is fed into the press and a sheet printed on both sides is delivered. A press that cannot print on both sides in one pass is not a "single in-line continuous printing process".

"6. Based on the above teachings of "perfector", together with the teachings of printing "over" and "single in-line continuous printing process", claims 44-87 of the '363 reissue application are based on a perfecting press as described in '363, and are supported by the teachings of the '363 patent.

"7. The term "overcoating" can be used with a press that does perfect as well as with a press that does not perfect. The term means to apply a material/coating over a previously applied material. Printing "on top of" is synonymous with "overprinting" – printing on the same side of – which is a subset of printing "over" in which the second or downstream unit can also print on the reverse side of the substrate.

"8. In column 4, lines 29 and 43 of the '363 patent, reference is made to printing an image "over" a previously printed image. In column 4, line 38 of the '363 patent overcoating can apply to a perfecting press or a non-perfecting press, the preferred method would be to accomplish this on one pass through the press (a in-line continuous printing process), a perfector. Generally when the term "overcoating" is used in the art, it is used to describe the use of a final coating of a gloss, dull or matt water based or UV coating to improve finish (visual) and or rub resistance.

"9. In reviewing column 7, lines 52-60 of the '363 patent, the language "on top of" is only describing one way printing works, using reissue applicants' process. This is the same on a "perfecting" or non-perfecting press." (Emphasis Prince)

As indicated by expert Prince, reissue applicants' teachings are versatile and concerning the combined process.

As requested by the Examiner in the May, 2000 office action, expert Prince testifies that the term "continuous in-line process" taught one of ordinary skill in the art that reissue applicants invention had the option of perfecting:

"3. As explained in the March supplemental declaration, the word "over" has several meanings, and one of the meanings is, clearly, "perfecting". As of August 1995, the word "perfecting" meant to print on both sides of the sheet in one pass through the press. Note also, the attached article (Exhibit A hereto), the "Toth Article" written in March of 1995 for the publication *Graphic Arts Monthly* by senior writer Deborah Toth, and specifically, the underlined portions on pages 2 and 7. Deborah Toth is one of the most respected writers of *Graphic Arts Monthly*, an important journal in the field. The Toth article indicates that presses that have eight units with a "perfecting" unit between units 4 and 5 are referred to as a "4-over-4" perfector. The word "over" and "perfector" in this case are synonymous. A sheet that has 5 colors on one side and one color on the other, and is produced in one pass, would be referred to as a "5 over 1" press, i.e., a "perfecting press".

4. *Based on the usual and ordinary meaning of the terms "continuous process" and "in-line process", as well as the written description of the invention of the '363 patent, the phrase "continuous in-line process" in August 1995 is understood by one of ordinary skill to include the option of perfecting.* Indeed, the word "continuous process" (as used in the recently published *Graphic Arts Encyclopedia* published by Graphic Arts Technical Foundation, Sewickley, Pa., 1998, compiled by Prof. Frank Ramano and son, page 191, Group Exhibit B [hereto]), is defined as "In any manufacturing process, the ongoing production of a steady stream of material, in contrast to a batch process." The word "in-line" has many meanings, but the one that applies to the technology as discussed is (*Encyclopedia*, see page 428, Group Exhibit B [hereto]) quoted as follows: "In-line is also descriptive of any series of processes connected in a logical sequence, requiring little user intervention." In addition, the term (*Encyclopedia*, page 592, Group Exhibit B [hereto]) "perfector /perfecting" means printing on two sides during one pass through a press. These terms had the same meaning in 1995 as they did later in 1998 to those in the art when the *Encyclopedia* was first published. Note Exhibit C [hereto], published in 1994. It has been my observation that most (90%) of the printing done in this country is now (year 2000) printed on two sides. The prime example of work printed on one side is folding carton; however, this is changing with the advent of printing coupons on the inside of cartons. "Continuous in-line process" can only be performed today (and in the year 2000 in over 90 plus % of the cases) by employing a press that can "perfect" the work. If "perfecting" were not done, then batch processing would have to be done which would defeat the economics of "continuous in-line processing." By no means in August 1995 were all commercial-size lithographic presses capable of "perfecting." Most I believe, were not. As of August 1995 -- the time of filing of the application leading to the '363 patent -- it is my belief approximately only 30% of new offset lithographic sheetfed presses being sold had "perfecting" units. At that time the 30% was growing rapidly. Today approximately 70% of the new sheetfed offset lithographic presses are sold with "perfecting"

units. Further, it is my opinion as an expert in the printing arts that, as of August 1995, to one skilled in the art, the term mentioned in the '363 patent "continuous in-line process" would include the option of "perfecting." This is stated for at least the following reasons:

- (a) without "perfecting", the work in many cases would have to be put through the press a second time and, therefore, the process would not be "continuous";
- (b) "perfecting" was an integral part of the concept known to one of ordinary skill in the printing art of a "continuous in-line process" as of August 1995."

The term "continuous in-line process", found a great number of times in the '363 patent, indeed, had a well-established meaning to one of ordinary skill in the art as of its filing date in August 1995. (Note '363 at the Abstract, line 8; col. 4, lines 10-11; col. 4, lines 23-24; col. 4, lines 31-32; col. 4, lines 33-34; col. 4, line 44; col. 5, line 7; col. 5, line 16; col. 5, line 21; col. 5, line 27; col. 5, line 44; col. 6, line 59; col. 6, line 65; col. 7, line 13; col. 7, line 18; col. 7, line 22; col. 7, line 33; col. 8, line 15; col. 8, lines 22-23; and col. 8, line 27. *That term meant to one of ordinary skill in the art a printing process including the option of perfecting.*

See Exhibit F (dark green tab), Supplemental Declaration of Raymond J. Prince.

The Examiner erroneously points to a teaching within DeMoore of perfection at col. 3, lines 17-20. "As used herein, the term 'processed' refers to various pointing materials which may be applied to either side of a substrate . . ." It is respectfully submitted that "either" side does not mean both sides. Moreover, the remainder of DeMoore's teachings pertain to overprinting, which is not perfection. Note DeMoore 74/1025A2 at col.9, line 13, col. 9, line 50, col. 9, line 56, col. 10, line 23, etc. Simply put, DeMoore does not teach perfection, he teaches away from it. As expert Prince testifies in his **Supplemental Declaration, Exhibit A hereto** (§11) (yellow tab):

"11. I have also been asked to review the process aspects of EP 741,025A2 ("025") in conjunction, and rejections, of claims 1-87 based on anticipation (35 U.S.C. sec 102) and obviousness (35 U.S.C. sec 103) by the examiner, in the same office action, the pertinent portion attached hereto as Exhibit C. I understand that the examiner believes the invention of reissue claims 1-6, 9-20, 22-25, and 28-38 are taught by the '025, i.e. "anticipated", and the remaining claims "obvious". I understand a publication is anticipatory if it puts one of average skill in the art in possession of the claimed invention at the time of (filing date) of the claimed invention. I understand that a referral makes a claims invention

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obvious if the claimed invention as a whole was obvious to perform or to do as of the filing date of the claimed invention. I strongly disagree with the examiner and I found claims 1-87 cannot be anticipated or made obvious by the '025 even if it is prior art (which I cannot see how, the '025 was published in late 1996 and the filing date of the '363 is in 1995). In examining EP O 741 025 A2, I conclude:

- (1) "There is no reference to perfecting in the '025;
- (2) "The '025 application refers to overprinting which is not perfecting, and which is not synonymous with printing over;
- (3) "There is no mention of a single in-line continuous printing process; (Emphasis Prince)
- (4) "The '025 application expounds the cantilever approach and its design rather than a process – the cantilever design has been in use through out history, and I find it hard to believe that valid cantilevered apparatus claims for the particular cantilever disclosed could be an issue in any industrial country;
- (5) "Cantilevered coaters, as described in the '025 and variations thereof, was traditionally placed at the end of a presses as of 1995, not between units."

As Prince testifies in his Second Supplemental Declaration, **Exhibit F** hereto (dark green tab):

"5. In reviewing application Serial No. 08/435,798, I note that the terms "perfect", "perfecting" and "continuous in-line process" are not used. Simply put, the applicants of the '798 do not teach their apparatus and process elements to apply to that process option."

The Examiner dismisses Prince's first expert testimony because Prince does not provide a written exhibit as to "over". Prince's expert sworn testimony working in the printing industry with many clients, including reissue applicants' assignee. See Prince, Original Declaration. If the Examiner wishes to challenge this testimony, it is respectfully submitted such challenge should be made under oath, pursuant to 37 C.F.R §§1.104(c)(3) and 1.104(d)(2). Otherwise, the dismissal of the expert testimony is seen as, by law, insufficient, and the rejection should be withdrawn.

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V.
**Rejection of Claims 1-6, 9-20, 22-25 and 28 Under
35 U.S.C. §102(e) over DeMoore, et al. U.S. Pat. 5,960,713 or EP 741,025 A2**

The rejection of the aforementioned claims is respectfully but strongly traversed for each of the reasons:

A.
The Rejection is Non-Statutory

Attached hereto is a copy of U.S. Pat 5,960,713 (**Exhibit B**, dark yellow tab). Like earlier issued U.S. Pats. 5,598,777 and 5,651,316, the '713 is a creature of four applications filed on the identical text and drawings on October 2, 1995, subsequent to reissue applicants' filing date.

The only "CIP" material which appears to us was added to the October 2, 1995 date appears at col. 16, lines 18-41.

*More important, an examination of the application on which it depends – unissued Serial Number 08/435,798 (**Exhibit C** hereto, orange tab) shows that entirely different inventions are involved – the '713 teaching claiming an in-line flexographic and lithographic apparatus while the 08/435,798 is directed to an "add-on", cantilevered configuration, the type of which is old in the art. See **Supplemental Declaration of Prince**, ¶¶11(4) and 11(5), **Exhibit A** hereto (yellow tab). The figures of each of Exhibits B and C are different as is the text. *There is very, very little overlap in the '713 patent background and objects from col. 1, line 30 through col. 4, line 28 with Serial Number 08/435,798 (highlighted yellow in '713 **Exhibit B**, dark yellow tab) and the rest was added on October 3, 1995 (highlighted pink) or the 1998 CIP, i.e., Col. 16. There is no overlap in the drawings order cryption of the preferred embodiment. The teachings of '713 / '777 / '316 and the Serial No. 08/435,798 are directed to apples and an orange.**

And that brings us to another point. DeMoore '713 falsely and belatedly in late 1998 claimed the benefit of the filing date of Serial No. 08/435,798 at a time Serial No. 08/435/798 was rejected and was on appeal before the Board of Appeals of Interferences. In MPEP §201.11 (note last section) does not require a PTO examiner to compare specifications of an applicant to ascertain correctness of a date claimed under 35 U.S.C. §120. This can lead to invalidity. See

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Akzona, Incorporated v. Pennwalt Corporation, 570 F. Supp. 1097 (D. Del. 1983), affirmed, 740 F.2d 1573, 1578-1579 (Fed. Cir. 1984). Comparison of Exhibits B and C indicates to any competent lawyer that any §102(e) rejection based on the '713 patent must be withdrawn, as the '713 is very clearly not entitle to the May 4, 1995 filing date. A copy of the district court Akzona case is attached hereto as **Exhibit D** (red tab.)

Presently, there are two overlapping tests whether or not the PRI /713 applicants are entitled to the benefit of the filing date of Serial No. 08/435,798: first, the stationary criteria in 35 USC §120 relating to enablement, description and best mode support in the May 4, 1995 application for the '713 claims and, second, the case law "in the possession of" test. Serial No. 08/435,798 meets neither test.

EP 741,025 is likewise unavailable, on its face EP 741,025A2 is not a foreign patent under the law. Most importantly, EP 741,025A2 did not publish until November 6, 1996, and is available as a reference under 35 U.S.C. §102(b) only a year after its publication. See In re Hilmer, 359 F.2d 859, 149 USPQ 480 (CCPA 1966). A European published patent application based on a US priority document is not a U.S. patent under 35 U.S.C. §102(e).

B.

DeMoore et al. and PRI Derived Whatever Elements of the '363 Process Disclosed in the '025 Application Invention Came from Reissue Applicants

Reissue applicants have submitted in **Exhibit E** (light green tab) their joint declaration not only under 37 C.F.R. §1.131, but pertaining to the derivation by DeMoore and PRI of those claims of Serial No. 08/435,798 relating to applicants' process:

"5. As of the time of the July 1994 meeting, WPC, reissue applicants' assignee had settled a lawsuit with Steve Baker's then employer, Printing Research Corporation ("PRI"). Part of the settlement involved an obligation on the part of WPC to buy an agreed dollar amount of equipment and/or supplies from PRI. WPC had committed in early August 1994 to purchase dryer equipment from PRI for a line of Heidelberg printing presses to be installed at WPC starting in late 1994 running well into 1995. In fact, as part of the Atlanta trip, of the undersigned, Jesse Williamson was shown by Steve Baker a PRI-constructed HV interstation drier at a local carton printer manufacturer in the Atlanta area. The undersigned reissue applicants also disclosed to Steve Baker WPC's proprietary "WIMS" process - later to become U.S. Pat. 5,370,976 - concerning the printing of metallic inks. We informed Steve Baker that a patent application was

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pending concerning the "WIMS" process. We showed Steve Baker some Rolex watch advertisements that were part of some jewelry catalogues that were printed by the WIMS '976 process. Jesse Williamson picked up the bill for dinner, even though Steve Baker was the salesman trying to sell WPC equipment.

6. We told Steve Baker at the Atlanta restaurant that we had conceived an invention to improve the WIMS process to make the metallic inks printed appear even more brilliant. As stated above, we told Steve Baker that we wanted to use flexography at a printing station we designated "upstream" — perhaps even the first station --- of one or more printing stations of an offset lithographic press that WPC would receive from Heidelberg. We mentioned several ways in which this could be done --- by a dedicated flexographic station which would replace an existing lithographic station, by a bolt-on manually added (like a "T-head", modified) device that would be used on a run-by-run basis, or a retractable or "rack-back" mechanism sold in the trade, which would have to be modified for "upstream" use. We mentioned that with respect to the rack-back option, that we would have like a retractable mechanism with an anilox roller and a chambered doctor. We would employ state-of-the-art flexographic plates. We mentioned that we had seen the use of some of these flexographic plates in Germany in late May 1992 and again in July 1994 and that a number of companies sold high-resolution plates which would work in our new process. We asked Steve Baker whether or not PRI was interested in supplying these types of rack-back or retractable devices. Steve Baker told us that PRI had available for modification an end-of-press rack-back, not dissimilar to (a) Dahlgren International's end-of-press device currently sold and (b) other devices which were sold by PRI's competitors. We were told PRI's rack-back was developed by PRI employee, John Bird, when John Bird was employed previously at another company in the eastern part of the United States. We had seen rack-back literature as of 1994 from a number of companies, including Dahlgren, Oxy-Dry, IBC, Rapidac, IVT, Epic, and PRI. Dahlgren had sold rack-backs for many years with anilox rollers, and on request, supplied a chambered doctor to units ordered. Any one of a number of rack-back vendors could have easily altered their end-of-press rack backs to make same an interstation device as of 1994.

7. We indicated to Steve Baker that we wanted to run some tests at Printing Research using the retractable equipment which might be modified for interstation use. These tests — conducted for WPC occurred later in 1994, specifically in October and December, as we recall. The tests concerned spot coating of selected images, including the application of metallics (our specialty in view of WIMS '976), opaque colors and encapsulated essences, as well as the evaluation of the resolution of flexographic plates. From approximately August to early October 1994, we investigated several flexographic plate manufacturers (DuPont, BASF and W.R. Grace (Polyfibrone)) that supplied WPC with the flexographic plate technology used in the October and December 1994 tests at PRI. The plates were made

at Chicago Lithoplate and Wilson Engraving using raw plate materials supplied by the manufacturers and negatives supplied by WPC. For these tests at PRI, we supplied the substrates, the flexographic plates, the subject matter for the plates (selected films from previous jobs), and the flexographic inks and coatings. The tests were conducted at PRI at Bill Davis' direction. The December 1994 tests continued the October tests, and were also under Bill Davis' direction. We had much earlier, in our July 1994 trip to Germany, begun our investigation of the manufacture of flexographic printing plates, which included, in due course, discussions with the foregoing plate manufacturers.

8. In a series of meetings and conferences, which started on or about August 18, 1994, we conveyed to John Bird details of the '363 process we wanted implemented by a modified "rack-back" device to go "upstream", together with these tests we wanted run in the fall of 1994 using the 2-color press at PRI. Specifically, among other things, we disclosed to Bird (a) the resolution requirements for flexographic plates for our process, (b) requirements for anilox rollers, including line screening count ranges and minimums, and the availability of anilox rollers having desired features, (c) the WIMS '976 process (now U.S. Patent 5,370,976), (d) the problems with the printing of metallic/whites/opaque/encapsulated essences/and various other coatings with WIMS '976, (e) our desire that the flexographic plates be mounted to the blanket cylinder, (f) our uses of and requirements for flexographic inks and coatings, (g) half-tone printing, and (h) drying requirements for the new process. These matters were discussed in various meetings with Bird starting in August 1994 and proceeding through very late 1994 into early 1995. We notice in a review of the application filed as Serial No. 08/435,798 and its European equivalent EP 741,025 (A2) that the process aspects of this application filed in the name of three PRI employees, including Bird, discloses process features we told Baker and Bird from July 1994 through the end of 1994. We do not believe that any of the important process aspects taught in the PRI application pertaining to the '363 claimed invention originated with anyone other than the undersigned, through Bird and Baker. PRI derived the process aspects of their May 4, 1995 priority patent application from us.

9. As stated, Bill Davis conducted and supervised the fall 1994 tests at PRI using flexographic plates, inks and coatings supplied by WPC. WPC did not enter into a formal written understanding committing PRI to build for us any rack-back devices of any type prior to February, 1995, after we returned from Germany in January 1995, where we successfully simulated the '363 process, although we told PRI and Baker (and later Bird) from July 1994 forward that PRI would be in the running for the business if PRI made such an interstation device.

10. We were never told at any time prior to early 1999 by anyone at PRI that anyone at PRI thought some PRI employee had conceived the '363 process. We clearly came up with the process, as is corroborated by the Baker and Bird declarations. We even

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informed WPC's Chairman, Jerry Williamson, of some of the prospective advantages of the process. Note the internal memorandum of November 18, 1994, paragraph no. 6 on page one, the first document of group **Exhibit A**, and a later memorandum dated December 16, 1994, item two.

See MPEP §715.01(c); In re Kaplan, 789 F.2d 1574; 229 USPQ 678 (Fed. Cir. 1986); In re Mathews, 408 F.2d 1393; 161 USPQ 276 (CCPA 1969); In re Bullock, 604 F.2d 1362; 203 USPQ 171 (CCPA 1979); In re Katz, 687 F.2d 450; and 215 USPQ 14 (CCPA 1982).

Reissue applicants' declaration at ¶¶5-10 removes the '713 as a reference.

Under separate cover in a document entitled **Applicants Memorandum Concerning the Prior Art and Their Position on Patentability ("Memorandum")**, Applicants submit the attached *corroborating* declarations of (1) EP 741,025 and Ser. No. 08/435,798 applicant **Bird**, former employee of DeMoore, former DeMoore employee Steven **Baker**, and Heidelberg U.S.A. employee Scott **Brown**, and former PRI President Steve **Garner**. As is indicated in the sworn testimony of Baker and Bird, reissue applicants told PRI employee Baker about reissue applicants invention during a restaurant meeting in July 1994. Baker Decl. ¶¶4-7 (**Memorandum Exhibit A**) and Bird Decl. ¶10 (**Memorandum Exhibit B**). The parties had settled a previous litigation in October, 1993, and reissue applicants assignee agreed in that settlement to give DeMoore's company some business. Reissue applicants chose to have some tests conducted at DeMoore's place of business in the fall of 1994 to check out a "rack-back" type add-on device. Baker Decl. ¶¶8-9, **Memorandum Exhibit A**; Bird Decl. ¶¶ 10-13, **Memorandum Exhibit B**. As testified by **Bird**, one of the '025 applicants, and according to his testimony the only PRI employee familiar with flexography (**Bird Decl. ¶¶10, 12-13 and 6**, the basic process cam from reissue applicants):

"I became aware from Steven Baker, one of PRI's salesmen, upon his return in July 1994 from Atlanta, Georgia, of a meeting between Steven Baker, Jesse Williamson and Bill Davis of WPC. Steven Baker told me of a July 1994 meeting in an Atlanta restaurant in which Davis and Williamson told him (Baker), in confidence, of Davis and Williamson's intent to improve the so-called "WIMS" metallic printing process of WPC, U.S. Patent No. 5,370,976 ([Bird] Exhibit 13), of which at the time I had some familiarity with the process, but not a lot. Baker told me in July 1994 that WPC had already committed orally to purchasing dryer equipment from PRI for the line of Heidelberg printing

presses, and that Baker had shown Jesse Williamson and Bill Davis a PRI-constructed HV interstation dryer at James River carton printing plant in Newnan JB, Georgia, and that Baker had been told of a pending WPC patent application for the "WIMS" process. Baker told me that as part of these discussions, they confided in Baker that they wanted to use flexography at a station they designated "up-stream" -- perhaps even the first station -- of one or more offset lithography presses that they would receive from Heidelberg. Baker mentioned to me at the time in July 1994 that they mentioned several ways in which this could be done -- most preferably, a retractable or "rack-back" mechanism, which would have to be modified for "upstream" use. Baker told me that with respect to the "rack-back" option told him by Davis and Williamson, they would have to have the retractable mechanism have an anilox roller, a chambered doctor, and the use of state-of-the-art flexographic plates. Baker told me that Davis and Williamson indicated they had just seen the use of some of these flexographic (BASF) plates in Germany, and that a number of companies sold high-resolution plates which would work in their new process. Baker told me that Davis and Williamson inquired whether PRI was interested in supplying these types of "rack-back" or retractable mechanisms, and that he (Baker) told Williamson and Davis of the PRI "rack-back" and provided a brochure, [Bird] Exhibit 10. Effertz Tool Company, Franklin Lakes, New Jersey, made these "rack-backs" for me while at Birow, Incorporated, and Effertz continued to make these "rack-backs" for PRI for the few units PRI sold when I brought the technology to Dallas.

"Steve Baker also told me on his return to Dallas in July 1994 that Davis and Williamson wanted some experiments run at PRI using my "rack-back" (note again brochure, Exhibit 10). I recall such experiments at PRI conducted in the fall of 1994. These tests were done on PRI's two-color Heidelberg R&D press utilizing an existing "rack back" coater of my design at the end of the press, at the direction of WPC, with WPC supplying most of the flexographic inks and the flexographic plates for the experiments. The tests were chiefly designed to determine the resolution that was possible with the PRI coater, and supplied plates and coatings. No one-pass tests of the claimed '363 process were done in the fall at PRI. In fact, to the best of my knowledge, no tests were ever conducted at PRI of the '363 invention, only at WPC. In fact, to the best of my knowledge, no off-line simulated tests (flexography done first with a second pass of performing offset lithography in a pass-through) were ever performed at PRI. I never collaborated with Bill Davis or Jesse Williamson or anyone else at Williamson concerning the '363 invention in 1994 or 1995. Again, PRI, to the best of my knowledge, does not have any late 1994 or early 1995 record, notebooks, e-mails or memoranda concerning any conception by PRI of the '363 claimed invention.

"I suggested that my colleagues start working toward an acceptable flexographic printer coater for use with the Davis-Williamson '363 process. In the late fall of 1994, pursuant to my

recommendations, PRI did start working on what was termed in-house as the "Rendleman coater," the first prototype being a cantilevered, "short-arm" device that would fit on an end-of-press Heidelberg-manufactured coating tower of the first Heidelberg press to arrive at Williamson – the so-called "7 color Heidelberg CD." The purpose of our development of the device was clear: we did this to try to get all of WPC's business. We had no firm orders from them for this equipment. That prototype was actually not installed at WPC until late February 1995.

"Accordingly, when I reviewed PRI's complaint, I find no important factual merit to it whatsoever. The invention of the '363 patent has never been installed or used outside of WPC. The "Rendleman coater" was developed at the suggestion of Bill Davis and Jesse Williamson for WPC. Neither Ron Rendleman or I have ever developed the '363 process, let alone Howard DeMoore. Had PRI invented the process, PRI would never have taken prototypes outside the offices of PRI or told a customer about it without detailed secrecy agreements. *Moreover, in my opinion, PRI had no motivation to come up with the process invention because it did not utilize the WIMS process out of which I believe the '363 patent originated. To the best of knowledge, no one at PRI ever told the '363 invention to Davis and Williamson - the reverse I know occurred in July 1994. PRI did not even have the facilities to reduce the '363 invention to practice - even by simulation. If PRI had the capability to use or to simulate the '363 process, the 1995 brochure would have been printed by the '363 process. The brochure was not. I know intimately the details of the development of the "Rendleman coater" in 1994-1995, had numerous discussions on a week-to-week basis with Rendleman, kept DeMoore informed as to the progress of its development and the installation s of the "short term" (late February 1995) and long-arm devices, and attended the few experiments in the fall of 1994 and the few meetings in 1995 where employees of the two companies met. No experimental or developmental work - no collaboration- occurred between PRI and WPC. Howard DeMoore was never involved in the conception or development of the interstation "Rendleman coater" - he was virtually never in PRI's offices. To the best of my knowledge, the '363 invention is the genius of Jesse Williamson, who is a visionary, and Bill Davis whose printing process experience made it possible to bring it about.*

Contrary to the allegations in the Complaint, Exhibit 4 [hereto], Howard DeMoore did not conceive, invent, reduce to practice, or develop the '363 invention, or any individual or team at PRI" Bird Decl., ¶¶ 24-25 (Emphasis supplied)."

In discussions in January 1995, reissue applicants told PRI that they would file a process patent application on their process invention. Baker Decl. ¶10; Bird Decl. ¶14. Reissue applicants simulated the invention by a flexography pass through first, followed by offset lithography, in Germany in January 1995 and again in the USA in the latter part of March 1995 – which Bird

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attended as a guest of applicants --, for which the applicants received recognition in the industry and won a prize. The test in Germany had been planned since the previous fall, See Brown Decl., ¶¶3-6. Moreover, reissue applicant told Brown of Heidelberg U.S.A. of the invention as far back as July, 1994. Brown Decl. ¶2, Memorandum Exhibit C.

Baker testifies (Memorandum, Exhibit A) that he was told about the invention from Reissue Applicants in July 1994 and passed the information along to PRI.

Bird also testified that pursuant to a series of meetings after July 1994, starting on August 18, 1994 and ending in late fall of 1994, reissue applicants told Bird of the process details of reissue applicants process that ultimately showed up in the '025 patent application. Suppl. Bird ¶¶2-5, 9 (Emphasis supplied), Memorandum Exhibit D. Note also Memorandum, Exhibit B. Even former PRI President Garner's (Memorandum Exhibit E) testimony is not inconsistent with Bird's - the PRI employees didn't start active development on the cantilevered device until December 1994, and none of the PRI employees at the time claimed inventorship of the process. The Bird, Baker and Garner declarations are pertinent testimony that PRI derived the process information from reissue applicants. See In re Matthew, 408 F.2d 1393, 161 USPQ 276, 56 CCPA 1033, 1037-8 (CCPA 1969); In re Frilette, 412 F.2d 269, 162 USPQ 163, 56 CCPA 1262, 1269 (CCPA 1969).

Hence, Bird, DeMoore and PRI derived whatever portions of cantilevered patent EP 741,025A2 pertains to reissue applicants process of Serial No. 08/435,798 from reissue applicants.

C.

**Even were it Prior Art EP 741,025 A2 or Serial No. 08/435,798
Does Not Put the Artisan in Possession of Claims 1-6, 19-20, 22-25 or 28-38**

Over 90% of the EP 741,025 A2 apparatus teaching is directed to the cantilevered apparatus claimed - not the process.

Even ignoring the fatal defects of each of each description / utility and the failure to incorporate the WIMS '976 patent, the rest is far too pithy to place the applicant in possession of applicants process invention. Most revealing is that DeMoore EP 741,025 teaches use of the cantilevered unit between offset lithography units or traditionally, at end of press (See col. 2, lines 6-9. Only at col. 2, lines 40-45 does he mention the possibility of a flexography unit tested prior to offset lithography. Nowhere does he teach the remarkable and surprising benefits of reissue applicants' invention.

That should come as no surprise. The reason is that DeMoore and PRI had not simulated the invention or reduced it to practice by May 4, 1995 at PRI. See, **Bird Decl.** ¶¶13-16. PRI's only exposure to the benefits of the invention were simulations conducted by reissue applicants at reissue applicants' employer in March 1995, attended by PRI's Bird. **Bird Decl.** ¶16. DeMoore's lack of instruction to do the invention coupled with no teaching of the surprising results leads to the inevitable conclusion that as of May 4, 1995, DeMoore was not in possession of the claimed invention. The "possession of the invention" by the third party applicants is the case law test now used by the Federal Circuit – the same test which had been used by the old country customs and Patent Appeals: "Thus, the decision on the proper priority date ... depends on when that subject matter first appeared in patent disclosures. To decide this question, a court must examine whether the "disclosure" of the application relied upon reasonably convey[s] to the artisan that the inventor had possession at the time of the later claimed subject matter." Augustine Medical, Inc. v. Gaymar Industries, Inc., 181 F.3d 1291, 1302-3 (Fed. Cir. 1999); Wang Labs, Inc. v. Toshiba Corp., 993 F.2d 858, 865 (Fed. Cir. 1993). In re Donohue, 766 F.2d 531, 266 USPQ 619 (Fed. Cir. 1985); Ralston Purina Co. v. Far-Mar Co., 772 F.2d 1570, 1575 (Fed. Cir. 1985); In re Kaslow, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

The CCPA prior to 1982 employed the statutory test also. Note In re Schneida, 481 F.2d 1350, 1356 (CCPA 1973).

The Examiner is charged with determining whether the "possession" test under 35 U.S.C. §120 has been met. See In re Shaw, 202 USPQ 285, 293 (Comm. of Pat. 1978).

That also should not be surprising. Reissue Applicants' 363 process invention was the culmination of years of research involving specialty offset lithographic priority applications of metallic links. Specifically, the invention of the '363 patent was precipitate by reissue applicants' awareness that the results achieved by their assignee Williamson Printing Corp. in the early 1990s in reproducing on a substrate, e.e., paper, an image incorporating certain metallic inks were not the ultimate results desire for particular uses⁴. In the offset lithographic process, moisture from the dampening solution tends to oxidize and/or to dull metallic ink reproduction, which results in a less desirable degree of brilliance of the metallic inks on the resulting printed material. The WIMS '976 methodology was a notable advance in the offset lithographic art in reproducing metallic subject matter, but lacked the ultimate desired brilliance sought in automobile advertisements, jewelry advertisements, and any type of silverware/flatware advertisements, as well as various other metallic matter advertisements. The printing of these types of advertisements was one of the anchors of reissue applicants' assignee's Williamson Printing Corporation's (WPC's) boutique high-quality printing business.

The '363 process invention was not the result of some unorganized attempt to cure problems in the prior art, but the result of years of experience in the printing of metallic inks and the problems posed by such printing.

In his Second Supplemental Declaration, expert Prince analyzes each of claims 1-26 of the '713, compares them against Serial No. 08/435,798 and determines that there are a number of limitations in each of independent claims 1 and 12 **not** met by Serial No. 08/435,798:

"7. Save for Col. 1, lines 11-19 and , more importantly Col. 16, lines 17-41, U.S. Pat.5,960,713 has very nearly the same substantive specification and drawings as U.S. Pat. No. 5,651,316

⁴ Specifically, the aesthetic results achieved by the Williamson Integrated Metallic Systems ("WIMS") process, U.S. Patent 5,370,976, incorporated by reference in the instant application (col. 8, lines 8-12), which while clearly far superior to conventional four-color process printing of subject matter containing metallic images, was deemed by reissue applicants as subject to still further improvement, especially involving the application of metallic golds and silvers, which are difficult to reproduce. Four color process printing integrated with metallic colors has only occurred on a commercial scale in the last generation, first through the MIPP system ("Metallic Integrated Printing Process") by Eckart-Werke Metal Pigments and Powders of Furth, Bayern, Germany, and much more recently, reissue applicants' assignees' WIMS process, which, among other things, dramatically improved the efficiency of MIPP to make film for reproduction purposes (e.g., printing plate). MIPP, in reissue applicants' view, required laborious multiple, non-electronic, hand-masking steps.

and No. 5,598,777 (note the new disclosure at col. 16, lines 17-41 added to the specification leading to the '713 in August, 1998). The '713, '316 and '777 patents all have a common October 2, 1995 filing date, except for the '713, having a claim to the filing date of Serial Number 08/435,798, May 4, 1995. For the following reasons, I believe it is clear that the '713 applicants are clearly not so entitled to the benefit of the filing date of May 4, 1995 via Ser. No. 08/435,798.

8. The teachings of the "double bump" '713 patent are directed to a *semi-permanent*, if not *permanent* conversion of an offset lithographic printing press for flexographic production. This non-retractable unit applies coating to a flexographic plate mounted on *either the plate or blanket* (or both plate *and* blanket) cylinder of an offset lithographic printing press for direct or indirect (offset) flexography. The term "double bump" as used in the '713 patent, was a novel use of the term. The term normally meant to underlay one color with the same color, be it a solid or a tint. As used in the '713 patent, it means coaters engaging to the plate cylinder and blanket cylinder simultaneously. Nowhere in the '798 does the term "double bump" appear. Nor is the concept taught. Page 13, and pages 17-21 of Ser. No. 08/435,798 as filed teach away from "double bump" because the description specifically refers to the use of one coating/inking unit at a time, and not simultaneous.

9. The '713 patent does not disclose the *cantilevered* or "ferris wheel" device as taught by Serial Number 08/435,798/EP 741025(A2), or any other similar retractable mechanism --- in fact, in my opinion, it teaches completely away from the primary retractable cantilevered teaching of Serial No. 08/435,798. I have reviewed the claims of the '713 patent, and no '713 claim is supported by Serial Number 08/435,798, and the specification and claims of Serial Number 08/435,798 do not, in my expert opinion, provide a teaching which enables one of ordinary skill in the printing art to practice the claimed invention of the '713 patent, or even provides a text which fairly "describes" the claimed invention of the '713 patent. In my opinion, none of the '713 claims are supported by an enabling teaching or an adequate description in Ser. No. 08/435,798.

10. In the alternative, I have been asked to provide my opinion whether the disclosure of Serial No. 08/435/798 *reasonably conveys to one of ordinary skill in the art that the '798 applicants "had possession" of the '713 claimed subject matter.*" It is my opinion those applicants in Serial No. 08/435,798 very clearly did not have possession of the claimed subject matter of the '713 subject matter since in the '798 application they taught use of a specific type of retractable mechanism -- a *retractable, cantilevered* device -- whereas in the '713 patent they taught a *semi-permanent* converted press, and the '798 application did not teach *simultaneous* engagement of the plate and blanket cylinders.

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11. Independent Claims 1 and 12 read as follows (with some important provisions in bold that, in my opinion, are not taught by Serial No. 08/435,798) :

"1. In a rotary offset printing press having first and second side frame members and a plurality of printing units each having a plate cylinder, a blanket cylinder, and an impression cylinder supported for rotation in operable combination, the printing units having a delivery side and a dampener side opposite the delivery side, an interunit operator space between printing units and a dampener or a space for a dampener on the dampener side of each unit, the improvement comprising:

"a printing apparatus for inking or coating, the printing apparatus having a frame movably coupled to at least one printing unit **in the space for a dampener**, the printing apparatus being movable between an on-impression operative position and an off-impression retracted position;

"the movable frame supporting a removable first applicator roller and a

"removable second applicator roller, the first applicator roller, being supported for adjustment into and out of ink or coating association with the plate cylinder and the second applicator roll being cylinder, when the printing apparatus is moved respectively to the on-impression operative position and the off-impression retracted position;

"whereby a continuous or spot film of ink or coating can be applied **simultaneously by the printing apparatus to a plate cylinder and the blanket cylinder and ink or coating can be selectively applied to the plate cylinder or blanket cylinder or a plate mounted thereon if one of the first or second applicator rollers is removed from the frame.**" (Emphasis supplied)

I understand that this is a so-called Jepsen claim, wherein the '713 applicants admitted that everything in the six-line preamble, up to "comprising" was in the prior art.

"12. A rotary offset printing press having a printing unit of the type having a delivery side and a dampener side, said dampener side having a dampener space for receiving a dampener, comprising, in combination:

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"a plate cylinder mounted on the printing unit between the delivery side and the dampener side, and a printing plate mounted on the plate cylinder;

"a blanket cylinder having an ink or coating receptive blanket disposed in ink or coating transfer engagement with the plate for transferring ink or coating material from the image surface areas of the printing plate to the ink or coating receptive blanket;

"an impression cylinder disposed adjacent the blanket cylinder thereby forming a nip between the blanket and impression cylinder whereby the printing ink or coating material is transferred from the blanket to a substrate as the substrate is transferred through the nip;

"support means mounted on the dampener side of the printing unit;

"an inking or coating apparatus having a removable first applicator roller and a removable second applicator roller, **being positioned in the dampener space in place of a dampener**, the inking or coating apparatus being coupled to the support means for movement between an on-impression operative position and an off-impression retracted position wherein the first applicator roller is adjustably plate cylinder while the second applicator roller is adjustably supported for simultaneous movement into and out of ink or coating association with the plate on the plate cylinder while the second applicator roller is adjustably supported for simultaneous movement into and out of ink or coating association with the blanket on the blanket cylinder; and

"whereby a continuous or spot film of ink or coating can be applied by the inking and coating apparatus to a plate on the plate cylinder and a blanket on the blanket cylinder and ink or coating can be selectively applied to the plate on the plate cylinder or the blanket cylinder or a plate thereon."

Again I have placed in bold those limitations/elements that are important/material to claims 1 and 12 and not supported fairly by Serial No. 08/435,798. I note all other claims of the '713 patent are dependent on claims 1 and 12. The bolded limitations/elements of claims 1 and 12 not taught in Serial No. 08/435,798 have the following significance which is critical, in my opinion:

(a) In '713 Claim 1, the emphasized term "*simultaneously*" is supported in the '713 patent in Figure 4, 66 & 67; Figure 5, 66 & 67; Figure 6, 66 & 67; Figure 10, 67C and 66 C; Figure 11, 66C; Figure 12, 130; Figure 14, 67 & 66; Figure 16, 59; Figure 18, 66C; Abstract line 17; col. 1, line 28; col. 3, line 31; col. 10, line 37; col. 11, line 59. Claim 1 requires that coatings/inks are applied *simultaneously* -- importantly and significantly in my opinion, the word "*simultaneously*" is not used in application '798 and is not fairly taught. "*Simultaneous*" printing/coating is and has been rarely used in the industry since most work *traps*. The word "trap" has several meaning in the graphic arts. The most common meaning is the amount of spread/enlargement that is made to type or lines to accommodate the imperfections in stretch of the substrate/paper. In this sense the "trapping" function is employed on most type of printing today. *Simultaneous* printing is used in the production of some types of can printing, namely beer and shaving lotion. This particular application has little use in the industry and does not require the use of spread/enlargement of type or lines. The use of the word *simultaneous* is also used in '713 to mean a split fountain, i.e. using one ink fountain to apply two or more colors of ink. This split fountain arrangement is prior art. Page 13, lines 7-17 of Ser. No. 08/435,798 teaches away from simultaneous engagement; '798 teaches engagement from "*either the plate or blanket position*."

(b) In '713 Claim 1, col. 21, line 12 claim 1 requires that "one of the first or second applicator rollers is *removed* from the frame." (emphasis supplied) Note the '713 patent at col. 7, lines 11-46. Col. 11, lines 52-58 of the '713 supports the claimed applicator roller removal alternative. In application '798, no rollers are taught to be removed from the cantilevered mechanism relative to a primary teaching of simultaneous engagement, notwithstanding any inferences in Fig. 4 and col. 13, lines 9-14 to the contrary.

(c) In '713, Claim 12, col. 22, line 41, requires "support means mounted on the dampener side of the printing unit." This is also true of claim 1. (See first bolded language.) In mounting the flexo/coating unit on the dampener side of the press, the press is no longer a lithographic press, but is a specialty dedicated unit. This language is supported in the '713 patent by col. 3, line 52; col. 4, lines 5-7; col. 13, lines 8-11, Figure 3, 10; Figure 4, 10; Figure 5, 10; Figure 6, 10; Figure 14, entire unit in other figures labeled 10; and Figure 17, 10. In the '798 application, exactly the opposite is taught; namely, the unit is mounted on the *delivery* side of the unit. The '798, in fact, mandates contact on the delivery side -- see page 7 at lines 18-21 -- "when fully retracted, the coater and carriage assembly are lifted to an overhead position overlying the printing unit tower, thus providing complete access to the printing unit cylinders, without causing the printing unit to lose its printing capability." In '798, the unit is supposedly easily retractable so that the press unit can print by the lithographic process.

(d) Claim 12 requires at, col. 22, line 45 rollers "being positioned in the dampener space in place of a dampener." This is supported in the '713 patent by Figures 3-6; col. 3, line 52; col. 4, line 5-7; col. 13, lines 8-11; and col. 16, lines 49-58. The '798 application teaches the opposite and stresses that mounting on the *delivery* side is a major advantage--see page 20 of the '798 application as filed, lines 19-23. The '798 incorporates an easy to use feature, namely a drop-down coater/flexo unit which would only take a few minutes to install. The removal of the dampener system is a major project for a skilled equipment installer and would not be done by an employee of a typical printing firm. My expert opinion would be that it would take two days of work to install and debug the system. I deal with printers on a day-to-day basis. Such installation and adjustment would be unacceptable to the majority of the printers around the world because of the expense required to change-out the equipment and the downtime involved. As a practical matter, any such change to the plate and blanket cylinders would be *permanent* with the loss of capacity following - unacceptable to most printers paying millions of dollars for the modern presses. Factory installers and technicians would be required to make the modifications, especially on removal of the "double bump" system to return the press to normal lithographic operation.

Thus, in my opinion there are two fundamental differences between the '713 patent and the 08/435,798 or EP 0 741 025 (A3) application in that (a) the flexographic coating device in the '713 patent is virtually, if not literally (as mentioned above), *semi-permanently* mounted to the press, *preventing the use of that printing unit for lithographic printing* and (b) 08/435,798 does not teach simultaneous engagement of the plate and blanket cylinders. These are very serious differences. Hence, I do not think the '713 applicants can fairly receive the benefit of the filing date of Serial No. 08/435/798, filed, May 4, 1995."

Prince also determines that the additional limitations in a number of other '714 claims are not

met:

"In short, none of the '713 claims are fairly supported or described by Ser. No. 08/435,798 because of the above emphasized limitations in claims 1 and 12 which are missing from the teaching of Ser. No. 08/435,798. Moreover, as indicated above, the additional limitations of dependent claims 3, 4, 7, 8, 17, 18, 19, 22, 23, 25 and 26 are also not found in Ser. No. 08/435,798.

13. The '713 patent is directed to a teaching for only a very high specialized printer, and could be used only if the need existed in a narrow market. Any economic advantages are questionable, since it is unlikely that a printer would purchase an expensive press and then convert one or more units "semi-permanently" to a flexographic press, which is usually a press of lesser cost to the printer -- the teachings in the '713 patent are primarily directed toward the manufacture of a *semi-permanent*

restructuring of an offset lithographic press with dedicated stations for flexographic printing replacing the corresponding changed-out lithographic stations. *Both the blanket cylinder and the plate cylinder are engagable in each of these restructured units. The teaching of the '798 application is diametrically opposite -- a very specialized teaching of a certain form of retractable unit (cantilevered) adapted to save the lithographic option for each unit mounted, and with engagement to either the plate cylinder or blanket cylinder, but not both. It is true that in the industry certain parts of both the '713 and '798 teachings are in common -- e.g., certain traditional lithographic and flexographic parts, and anilox rollers, doctor blades, reservoirs for inks, pivot pins, power actuators, bell cranks, dryers, etc. But that is where the similarity ends. The '713 and '798 machines do not act in the same manner, and are different structurally in many ways and even with respect to the commonly identified parts, the parts are made differently.*

Second, there are other problems with the Serial No. 08/435,798 disclosure as indicated by expert Prince (**Exhibit A**, yellow tab hereto, Prince Suppl. Decl., ¶¶ 11(6) and 11(7)):

- (6) The '025 application will not even as of May 1995 adequately describe or enable one in the art to teach the '362 process. It does not adequately teach the '363 process, give a back ground as to the problems in the art, i.e. the problems with the WIMS patent listed below, nor does it provide the process. Further, benefits as does the '363 patent, it therefore, in my opinion, does not place the artisan in 1995 in possession of the '363 invention. Specifically, while column 2 lines 40-45 of the EP 0 741 025 A2 suggests that a flexographic unit could possibly be placed ahead of the lithographic unit, the application does not spell out any benefits -- there is no appreciation shown for doing flexography first --, in fact, the first part of Col. 2 of EP 0 741 025 A2 specifically indicates that the cantilevered device could be put at the last unit, as it was done traditionally, or between units, which was a dramatically different effect. Absent (a) being taught the benefits of performing flexography first (see, e.g., Col. 4, lines 10-20 and Col. 6, line 37 - Col. 8, line 27 in the Davis et al. '363), and the problems those benefits solved (see columns 3, and 4, lines 1-9 of the '363) and (b) knowing about the reissue applicants' assignees' prior "WIMS" patent U.S. 5,370,976 (incorporated by reference in the '363 patent at Col. 8, line 11), the artisan would not have had any motivation to try flexography prior to the lithography in 1995 -- there is no reasonable expectation of reissue applicants' success. Moving a rack-back up front in the lithographic press in 1995 was an expensive undertaking. Moreover, in 1995 flexography was regulated generally to lower quality work in the industry and if combined with lithography it was placed at the end of the press to apply coatings and in rare instances metallic pigment in suspension in a waterbased coating.

The flexography units in commercial use could not be physically placed between units due to size, without expensive modification. Further, the so-called "rack backs" available in 1994 or early 1995 for flexographic use were designed strictly for end of press installation. In addition, there was no technical reason indicated in the '025 application to place one or more flexo units between or ahead of lithographic units due to quality. The WIMS '976 patent is not mentioned, let alone incorporated by reference in the '025. Recently there has been great progress in the flexographic process and in particular the quality of plates and inks as well as coatings. Today flexography is capable of very high quality work. Many wine labels as well as high quality flexible packaging for example potato chip bags are now done by the flexographic process. This quality was not generally available in mid-1995; and

- (7) About 90% of the '025 patent publication is devoted to teaching of the design of the cantilevered device, not a process. The teaching of the process is inadequate. The remainder of the publication does not instruct unequivocally the artisan how to perform reissue applicants' process or provide benefits. It throws out to the reader is an opportunity to try it, without reason or motivation. Absent a teaching of reissue applicants found benefits and an incorporation of WIMS U.S. Pat. 5,370,976, and interpretation of the '025 patent as teaching claims 1-6, 9-20, 22-25 or 28-38, it is an exercise in sheer hindsight - it is reading the '025 patent not as one in the art would have read it on May 4, 1995 (the '025 priority date), but in 1997 or later with the '363 in front of the printer. The '025 does not teach the benefits of the '363 - bizarre in my opinion in 1995 unless someone knew about it. It does not mandate using flexography first - a fatal shortcoming in view of the fact it does not mention, let alone incorporate WIMS U.S. Pat. 5,370,976. 90% of the '025 teaching is about a cantilevered apparatus, the type of which was already in the art. No mention is made of the use of halftones. There is inadequate teaching of the use of blanket cylinders. I disagree that the teaching of claims 11-20 or 22-25 or 28 exists in the '025 in hindsight, ignoring the shortcoming of lack of incorporation of WIMS '976 and the outstanding results in reissue applicants process. Claims 7-9, 11-28 and 39-87 are clearly not taught, even in hindsight. Most importantly because of the failure of the '025 applicants to teach the benefits of the '363 patent and because of the failure to incorporate by reference WIMS '976, one skilled in the printing art is not in possession of even broad claims 1-6, 10, or 29-38 as of May, 1995. Such a reading would be pure hindsight. (Emphasis Prince and supplied)

Expert Prince is correct. The '363 Reissue applicants defined the problems posed by the prior art, incorporated WTMS '976, and taught the solutions and the advantages of the solution:

U.S. Pat. 5,630,363

[The Problems]

"Lithographic inks are formulated to print from planographic surfaces which use the principle that grease and water do not mix. Lithographic inks are generally very strong in color value to compensate for the lesser amount applied. They are among the strongest of all inks. The average amount of ink transferred to the paper is about half that of letter press because of the double split of the ink film between the plate cylinder and the blanket cylinder and blanket cylinder and the substrate on the impression cylinder.

"Problems occur in the offset lithographic process when attempting to print certain colors such as white and in particular white on other colors such as yellow because the color while will be faint and not sufficiently strong. In such cases, the sheet or paper on substrate requiring the white ink usually has to be run through the same printer several times before the white becomes sufficiently strong."

"Further, such colors are not generally printable in an offset lithographic printing process. This means to a second type of machine using the flexographic process to apply greater amounts of ink in successive printing runs to achieve the desired print quality.

"A like situation occurs with the printing of slurry-type materials such as "scratch-and-sniff" materials which is a liquid vehicle with a slurry containing an encapsulated essence. Such liquid vehicles, because of the nature of the slurry, must be printed with a flexographic process because the anilox roller can supply greater amounts of ink to the flexo plate on the plate cylinder.

"Again, when a liquid vehicle with a slurry having suspended material therein such as metallic particles is to be printed, an offset lithographic process cannot be used without the mixing of the aqueous solution with metallic inks which cause a dulling of the image. Further, the above-mentioned double split of the ink film adds to the dulling of the image. Therefore, to achieve desired results, the printing must take place with a flexographic printing machine."

"Thus, liquid opaque coatings or inks such as white colored ink, scratch-and-sniff vehicles, and slurries with metal particles do not achieve desired results when printed in an offset lithographic in-line machines to a separate machine for printing in a separate run."

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"Such requirements not only hinder the speed of the printing process but also require additional time and thus increase the cost of the printing.

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[The Solution]

"The present invention provides for a continuous in-line printing process having a plurality of successive printing stations for printing color images on a substrate. At least one of the stations prints a liquid vehicle image on a substrate with an opaque coating using the flexographic process and at least one of the successive printing stations printing a second color image over the liquid vehicle image on the printed substrate using the lithographic process in the continuous in-line process.

"In the novel invention system, a single in-line continuous printing process is used. One of the stations may print a liquid vehicle image on a substrate that contains a slurry with an encapsulated essence therein utilizing the flexographic process. Another one of the stations may apply an overcoating over the liquid vehicle image on the printed substrate using a lithographic process. Still another of the stations may print an aqueous-based vehicle image including a suspended metallic material therein using the flexographic process to form a metallic coating and thereafter at least one of the successive printing stations prints a color image over the aqueous-based vehicle image using the lithographic offset process in the continuous in-line process.

"Whenever a station is used for flexographic printing, a flexographic plate image is placed on the blanket cylinder for receiving the liquid vehicle and the transferring the liquid vehicle to the impression cylinder for printing. An anilox roller is associated with the flexographic plate for supplying the liquid vehicle which may be an aqueous-based vehicle.

"In addition, in such case, a high-velocity air dryer is associated with the impression cylinder for printing on the substrate is occurring to assist in drying the ink or liquid vehicle printed on the substrate while it is on or near the impression cylinder, before the substrate arrives at the next successive station for additional printing, or before printing occurs at the next successive station.

"Thus, if a liquid vehicle such as white ink is to be printed, it is printed with a flexographic process which deposits a greater amount of ink on the substrate, the ink is dried with a high-velocity air dryer while the substrate is on or near the impression cylinder and prior to the substrate being received by the next successive station. If desired, at the next successive station the printing of the white liquid vehicle may again take place thus ensuring the desired intensity of whiteness on the substrate. Subsequently, at the next succeeding station the printing of the white liquid vehicle may again take place thus ensuring the

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desired intensity of whiteness on the substrate. Subsequently, at the next succeeding station a printing may continue at the remaining successive stations.

"Thus, it is an object of the present invention to provide a plurality of successive printing stations for printing color images on a substrate in a continuous in-line process and in which some of the stations print using the flexographic process and other of the stations print utilizing the offset lithographic process.

"It is also an object of the present invention to print an aqueous-based vehicle image including a suspended metallic material therein using the flexographic process at one printing station and at least one successive printing station printing a color image over the aqueous-based vehicle image using a lithographic process in a continuous in-line process or placing an overcoating over the aqueous-based vehicle image using the flexographic process and then printing at successive stations using the lithographic process.

"It is yet another object of the present invention to provide a continuous in-line printing process in which one of the stations prints a liquid vehicle image on the substrate with a slurry containing an encapsulated essence using the flexographic process and at least one of the successive printing stations applies an overcoating over the liquid vehicle image on the printed substrate using the offset lithographic process in a continuous in-line process.

The Advantages

"It would be advantageous to have a continuous in-line process in which not only offset lithographic printing could take place but in which, in the same in-line process, liquid printing vehicles including opaque coatings, such as white ink, and slurries containing encapsulated essences or metallic particles could also be printed and dried not only before the printing of the offset lithographic inks but also in which, after the liquid opaque coatings have been applied, an overcoating could be applied to the printed liquid vehicle image using the lithographic process in the continuous in-line process.

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"Further, the modified flexographic printing station show in FIG. 2 as stated previously, may be any one of the stations 56-64 in FIG. 3, and as illustrated by stations 56 and 58, and may print an aqueous-based vehicle image including a suspended metallic material therein using the flexographic process to form a metallic coating. Again, after it is dried by the high-velocity air dryer 50, it may be passed to one of the successive printing stations for printing a color image over the aqueous-based vehicle image using the offset lithographic process in the continuous in-line process. The suspended material may include uniform-sized metal particles to form the metallic coating or it may include

nonuniform, or multiple-sized metal particles to form the metallic coating.

"The present invention is especially useful when a liquid opaque coating must be printed such as a white color ink. In that case, it may be desirable to have both stations 56 and 58 modified as shown in FIG. 3 and as illustrated in detail in FIG. 2. In such case, the anilox roller 46 at each station delivers the white ink in the same pattern to the flexographic plate 41 on the blanket cylinder 40 for transfer to the substrate on the impression cylinder 42. As the substrate passes the high-velocity drying station 50, the ink is dried and the second station may again print the same white pattern on the substrate to increase the quality of the white ink appearance after it is applied to the substrate.

"Thus, the station or stations that are converted to flexographic printing stations may have an ink-providing means 46 at the printing station for applying a flexographic ink to the blanket cylinder to form the image. A substrate receives the flexographic ink image transfer from the blanket cylinder and at least one subsequent printing station in the in-line process receives the image-printed substrate and prints an additional coated ink image on the substrate on top of the flexographic image using offset lithography. The additional colored ink images that can be printed on top of the flexographic ink images can be conventional lithographic inks or waterless inks.

"Further, the colored ink images may be printed with half-tone screening processes. The flexographic ink image and colored ink images may also be printed in solids and/or half-tone printing plates in sequence and in registry in the successive printing stations to produce a multi-colored image in the substrate. Further, the printing apparatus may include a sheet-fed press or a web press.

"In the present invention, at least one of the flexographic printing stations prints an image with liquid vehicle slurry containing an encapsulated essence. In another embodiment, at least one of the printing stations prints an image with a water-based liquid vehicle containing suspended particles that are either uniform or nonuniform in size. The suspended particles may be metallic particles up to substantially 16 microns in diameter.

"The present invention may also use the metallic color printing process as disclosed in commonly assigned U.S. Pat. No. 5,370,976 incorporated herein by reference in its entirety.

"In one aspect, the novelty of the present invention is to create a flexographic printing stations that can be used at one of a plurality of printing stations in a continuous in-line process and in which, at a subsequent printing station, a lithographic process may be used to print over the liquid vehicle printed by the flexographic station.

"Thus, there has been disclosed an apparatus for a combined lithographic/flexographic printing process that includes a plurality of successive printing stations for printing color images on a substrate and a continuous in-line process and wherein one of the stations prints a first color image using the flexographic process and at least one of the successive printing stations prints a second color image over the first color image using the lithographic process in the continuous in-line process." (Emphasis supplied).

See '363, Col. 3, line 40 - Col. 5, line 28 and Col. 7, line 37 - Col. 8, line 27.

Compare the above with the pithy and far inferior teachings of the '025 patent application concerning reissue applicants' process does not identify the problems, does not unequivocally identify the solution, does not incorrectly reference WIMS '976, does not provide applicants' advantages:

"In some printing applications, offset and smearing are prevented by applying a protective and/or decorative coating over all or a portion of the freshly printed sheets. Various arrangements have been proposed for applying the protective or decorative coating as an in-line operation by using the last printing unit of the press as the coating application unit. However, when such in-line coating is performed, the last printing unit cannot be used to apply ink to the sheets, and can only be used for the coating operation. Thus, while coating with these types of in-line coating apparatus, the process loses the capability of printing its full range of colors since the last printing unit is converted to a coating unit.

"It will be appreciated that the time required to reconfigure a press for coating or non-coating is non-productive and costly. Accordingly, there is a need for an in-line coating apparatus that minimizes the time to clean-up from one printing run and set-up and run the next job. Where consecutive jobs require the same type of coating, particularly blanket coating, it may not be necessary to clean-up the coater between jobs. However, the coating material cannot be allowed to dry on the rollers. Therefore, especially when switching from blanket to spot coating or vice versa, or if there is a delay between jobs, it is necessary to wash-up the coater after each job is completed.

"In addition, coater wash-up is necessary when switching between different coating compositions, such as aqueous and ultraviolet (UV) curable coatings. Such coating materials are not interchangeable, and consequently, the coater must be washed between applications of different coating media.

"The foregoing limitations are overcome, according to the present invention, by a retractable in-line inking/coating apparatus which is mounted on a printing unit for pivotal, Ferris wheel movement between an operative/coating position and a retracted, overhead idle position. The inking/coating apparatus includes an applicator

head which, is positioned in alignment with either the plate cylinder or the blanket cylinder by carriage assembly which includes a cantilevered support arm. The support arm is pivotally coupled between the inking/coating head and the printing unit tower. This cantilevered, pivotal mounting arrangement allows the inking/coating unit to be used between two printing units, as well on the last printing unit of the press.

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"When the inking/coating apparatus is used in combination with the flexographic printing plate and aqueous ink or aqueous coating, the water component of the aqueous ink or coating on the freshly printed sheet is evaporated by a high velocity, hot air interstation dryer and a high volume heat and moisture extractor assembly so that the freshly printed ink or coating is completely dry before the sheet is printed on the next printing unit. This quick drying flexographic printing/coating arrangement permits a base coat of ink, for example opaque white or metallic ink (gold, silver, or other metallics) to be applied in the first printing unit, and then overprinted by a lithographic process on the next printing unit.

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"The Ferris wheel support arrangement allows the inking/coating apparatus to operate effectively in the interstation space between any adjacent printing units, as well as on the first or last printing units of the press, without blocking or obstructing the interstation space or restricting operator access to the cylinders of any of the printing units.

"Finally, because the inking/coating apparatus of the present invention is mounted on a printing unit tower and is extendable to the operative position without requiring adjustment or alteration of the printing unit cylinders, it can be used for applying printing ink or coating material to the blanket cylinder of a rotary offset web press, or to the blanket of a dedicated coating unit."

See Col. 1, line 22 - Col. 2, line 9, Col. 2, lines 32-45 and Col. 11, lines 35-49 of the '025. The '025 patent application is not talking about a problem of dulling, but if anything, relates to two process alternatives to avoiding "offset and smearing", at best. The fact that there are two alternatives indicate the authors didn't understand the problem, let alone the solution. The problem of dulling is not identified, nor is the problem of the time delay of transfer of substrates between offset lithographic presses and flexographic presses where opaque coatings or metallic coatings are involved. One reading the '363 patent, having a knowledge of the WIMS process would therefore know the '363 patent taught the way to

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eliminate the dulling and lack of speed problems of the WIMS process, while one reading the '025 patent specification would not. Simply put, the '025 teaching concerning the process is nonenabling, fails to incorporate WIMS '976, and furthermore lacked sufficient description of reissue applicants' invention, including its utility, to motivate one of ordinary skill in the art to perform it in May 1995.

It is fundamental to our patent law that to establish prior invention, there must be evidence that the alleged prior inventors **appreciated** at the time of their work all of the elements of the invention. Standard Oil Company v. Montedison, 494 F. Supp. 370, 2206 U.S.P.Q. 676 (D. Del. 1980), aff'd, Standard Oil Company v. Montedison, 664 F. 2d 356, 212 U.S.P.Q. 327 (3rd Cir. 1981). See also, duPont v. Phillips Petroleum, 2 U.S.P.Q. 2d 1545, 1552 (D. Del. 1987), aff'd in part, rev'd in part, 7 U.S.P.Q. 2d 1129 (Fed. Cir. 1988). **Appreciation** is part of each of the patent laws legal concepts of conception and reduction to practice. See, Tilghman v. Proctor, 102 U.S. 707, 711-712 (1881) and Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U.S. 45 (1923); Heard v. Burton, 142 U.S.P.Q. 97 (C.C.P.A. 1964); Jennings v. Hill, 87 U.S.P.Q. 93 (C.C.P.A. 1950).

Such lack of appreciation for the problems in the prior art, for the advance made by the claimed process and the failure to incorporate the WIMS exhibit that lack of appreciation, and place the artisan reading the '025 specification in mid-1995 in the awkward position of having no motivation whatsoever to try the flexography - first step alternative. See Prince supplemental declaration, ¶¶11(6) and 11(7), **Exhibit A** hereto (yellow tab). *To constitute an anticipatory publication within the meaning of 35 U.S.C. §102(b), or if applicable, 35 U.S.C. §102(e), the invention must be described sufficiently to impact a person with ordinary skill and knowledge of the prior art the information needed to devise the invention without further genuine inspiration or undue experimentation.* See, Seymour v. Osborne, 78 U.S. 516 (1871); and, In re LeGrice, 301 F. 2d 929, 933-934 (C.C.P.A. 1962).

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**The Akzo N.V. in re Aramid Fibers Case is on all Fours
With This Process Case, and Both the ITC and the Federal
Circuit Determined There Was No Anticipation or Obviousness**

On April 18, 1984, E.I. duPont de Nemours and Company filed a complaint with the International Trade Commission under §337 of the Tariff Act (19 U.S.C. §1337) alleging that Dutch respondent Akzo N.V. and two other respondent Dutch companies committed unfair competition by importing into their country aramid fibers competing with Kevlar by a process practiced in Holland, which, were the process practiced in the U.S. would infringe Blades air-gap spinning process U.S. Pat. 3,767,756, and specifically claim 13 of the '756 patent of which the Dutch companies were accused of unfair competition. The investigation was deemed "complicated", and after extensive discovery before the commission, it was revealed that duPont employee Blades received from his supervisor Boettcher the suggestion to use the air gap, and the Boettcher had obtained information about the air gap from a lengthy relevant prior art patent to Morgan of Monsanto, U.S. Pat. 3,414,645.

At trial before ITC administrative law judge Paul Luckern, the Dutch companies argued strenuously anticipation, as they had done overseas and would do, successfully, in country after country: all the process elements of claim 13 were to be found in Morgan '645: air gap spinning; the inventor of claim 13 class aramid; 4,4'-DABT; spinning into cold water, and the use of a dope comprising concentrated sulphuric acid. The '645 even incorporated by reference two others patents which were highly relevant and included the aramid of choice, PPD-T. Indeed, any fair examination of claim 13 showed that it was broader than the Kevlar process and all the elements of the claim were expressly or implicitly taught by Morgan '645. DuPont countered with arguments that their was no teaching of a particular form of concentrated sulphuric acid - 98% - 100% - taught by Morgan '645, and more importantly, Morgan '645's fibers were 7gpd, only one-third the strength of Kevlar, and that Monsanto's Morgan neither appreciated the problems in the nylon prior art or the Kevlar process solution, and that one had to "pick and choose" between many elements taught in Monsanto '645 to arrive at the Kevlar process.

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Akzo countered that claim 13 did not recite the Kevlar properties, that claim 13 required only 98% sulphuric acid and that the bath temperature limit was, far, far too high to ensure Kevlar (actually less than 150°C was needed), that PPD-T as an aramid was in one of the Morgan '645 incorporate references. Most importantly, the term "concentrated sulphuric acid" as that term was used in Morgan '645, and the art include 98% concentration sulphuric acid.

Unlike tribunals in England, Holland and Germany holding for Akzo on the Blades patents, ITC administrative law judge Paul Luckern held for duPont on the anticipation issue in his Initial Determination ("ID"), holding that Morgan '645 did not enable the artisan to make Kevlar, motivate him to do the same, nor place the artisan in possession of the Kevlar process in claim 13;⁵:

"Anticipation under 35 U.S.C. §102 requires, in a single prior art reference, disclose of each and every element of the claimed invention. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983); *SSIH Equip. S.A. v. U.S.I.T.C.*, [*102] 718 F.2d 365, 218 U.S.P.Q. 678 (Fed. Cir. 1983). *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), cert. denied 105 S. Ct. 709 (1984) *Scott v. Inflatable Systems, Inc.*, 222 U.S.P.Q. 460, 461 (9th Cir. 1983); *In re Certain Automatic Crankpin Grinders*, 205 U.S.P.Q. 71, 76 (ITC 1984). Also to anticipate the reference must in an "enabling" disclosure, *In re Brown*, 329 F.2d 1006, 141 U.S.P.Q. 245, (C.C.P.A. 1964), i.e., a "direct teaching." As Judge I. Jack Martin stated in the Brown case, the "true test of any prior art" is whether the prior is such as to place the allegedly disclosed matter "in the possession of the public." *Id.* at 1011, 141 U.S.P.Q. at 249.

"Respondents argue the identity of claim 1 of the '756 patent, as to the polymer with the Morgan '645 patent by referring to 4,4'-DABT at col. 2, 1s 44-48 of the Morgan '645 patent and the disclosure of 4,4'DABT in the '756 patent which disclosure is within the generic concept of claim 1 of the '756 patent.

"Claim 13 of the '756 patent discloses a process involving PPD-T. Respondents argue that PPD-T is disclosed in the Morgan '645 patent by virtue of a Hill, et al. '899 patent and a Hill, et al. '511 patent (FF 295) which are referred to in column 1 of the Morgan '645 patent and which are said to disclose aromatic polyamides to be used in the Morgan '645 process. (FF 281,

⁵ '767 claim 13 read simply as follows:
A method comprising extruding a spinning dope from an orifice through a layer of gas and into an aqueous bath at a temperature of under 50°C said dope comprising a polyamide and solvent of sulphuric acid of at least 98% concentration at a concentration of at least 40 grams of said polyamide per 100 ml. of solvent, said polyamide having an inherent viscosity of at least 3.0 and being poly(p-phenylene terephthalamide).

282). (RPH p. 21). Respondents argue that the "slightly higher" polymer concentrations of claim 13 (at least 18 wt. percent in claim 13 as against at least 14.1 wt. percent in claim 1) are clearly disclosed in the Morgan '645 patent and therefore claim 13 cannot avoid anticipation. (RPH pp. 20-21).

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"The Morgan '645 patent is further deficient as an anticipating reference under 35 U.S.C. §102 because it does not disclose a process involving sulphuric acid of "at least 98%" concentration as a solvent for the polymer. This is a limitation not only in claim 13 but in each of the claims of the '756 patent. (FF 33). Respondents argue that the use of sulphuric acid of at least 98% concentration for PPD-T is disclosed in the Morgan '645 patent by virtue of the Smith '125 patent (FF 296-298) referred to in col. 1 of the Morgan '645 patent in the recitation [*106] in the Morgan '645 patent of concentrated sulphuric acid (FF 283). Concentrated sulphuric acid is not inherently sulphuric acid of at least 98%. For example the term concentrated sulphuric acid was used at DuPont to refer to sulphuric acid having a concentration as low as 95% (FF 158, 167). Also there is frequent reference in the literature to concentrated sulphuric acid with a concentration as low as 95%. (FF 389, 390). Concentrated sulphuric acid of at least 98% concentration is critical for the formation of the anisotropic dopes used in the processes of the Blades claims. (FF 37, 41). In neither the Morgan '645 patent nor Smith '125 patent is there a teaching of the use of sulphuric acid of at least 98% concentration for obtaining anisotropic dopes. A mere reference to concentrated sulphuric acid in the Morgan '645 patent is not a teaching of an acid of at least 98% concentration, as claimed in the '756 patent, found "in exactly the same situation . . . to perform the identical function" in the Morgan '645 patent, *Scott v. Inflatable Systems, Inc.* 222 U.S.P.Q. 460, 461 (9th Cir. 1983). Respondents have not established where in the four corners of the Morgan '645 patent, even [*107] with its disclosure of 4,4'DABP and its reference to other patents, there is a teaching to adjust the concentration of the sulphuric acid to at least 98% and to adjust the weight percentage of polymer to obtain the anisotropic dopes used in the claims of the '756 patent.

"Thus the examples in the Morgan '645 patent use total post-coagulation draws of 1.7x to 5.62x, with most of the examples using total post-coagulation draws of about 3.6x. (FF 266). Such post-coagulation draws are in the range of those conventionally employed in the processing of textile fibers such as nylon, polyacrylonitrile and polyethylene terephthalate. In such processing, the achievement of a high degree of orientation and crystallinity in the as-spun fibers is not a desideratum of the process since they would render difficult the subsequent drawing operation and lead to filament breakage in the drawing. The combination of properties in the fibers produced by Morgan, even after the extensive post-coagulation drawing, is very difficult from the properties of the as-spun fibers from the process of claim 13 of the '756 patent. Morgan reported the highest tenacity

as 7 gpd and an elongation of 33%, compared to fibers from the claim 13 process which can be as high as 20 gpd and have 3-4% elongation. (FF 267). n2 The highest tenacity of any fiber described by Morgan in the '645 patent is notably inferior to the tenacity of drawn nylon filaments available at the time (about 10 gpd). (FF 268). Nowhere does the Morgan '645 patent disclose a specific example where he makes a fiber of PPD-T. All the examples refer to meta-positioned polymers (FF 269). Meta-positioned polymers form isotropic solutions at all concentrations of polymer and do not form liquid crystalline solutions. Nowhere does the Morgan '645 patent disclose the spinning of fibers using liquid crystalline (i.e. anisotropic) solutions of dopes. (FF 269, 274).

"n2 The unique fiber properties produced by the claim 13 process cannot be divorced from the novel process even though each is separately patented. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, *supra*. 721 F.2d 1540, 220 U.S.P.Q. 303. See also *Congoleum Industries, Inc. v. Armstrong Cork Co.*, 339 F. Supp. 1036, 1053, 173 U.S.P.Q. 769 (3d Cir.), cert. denied 421 U.S. 988 (1975); *Ralston Purina Co. v. Far-Mar-Co.*, 586 F. Supp. 1176, 1224, 222 U.S.P.Q. 869, 900 (D. Kan. 1984).

"For application of the Morgan '645 patent under §102, to the claimed subject matter one would have to pick and choose among (1) a large number of polymers, (2) a plurality of solvents which in view of the recitation "concentrated sulphuric acid" only Morgan '645 patent would also involve a particular type of solvent, (3) a range of inherent viscosities. As Judge Rich stated *In re Arldey*, 455 F.2d 586, 587, 172 U.S.P.Q. 524, 526 (CCPA 1972) for anticipation under 35 U.S.C. §102 a reference must clearly and unequivocally disclose the claimed subject matter or direct those skilled in the art to said matter without any need for picking, choosing and combining various disclosures not directly related to each other by the teachings of the cited art. See also *General Battery v. Gould, Inc.* 545 F. Supp. 731, 744, 215 U.S.P.Q. 1007, 1017 (D. Del. 1982), *Structural Rubber Products Co. v. Park Rubber Co.* *supra* 749 F.2d at 716, 723 U.S.P.Q. at 1271.

"For the foregoing reasons Respondents have not sustained their burden in proving that claim 13 of the '756 patent is invalid under 35 U.S.C. §102." (Emphasis ITC and supplied).

Initial determination, 337-TA-194, May 9, 1985 (1990 ITC Lexus 266). It was a short leap for Judge Luckern to leap from non-anticipatory to non-obviousness, as well. The Commission affirmed ITC ALJ Luckern, and the Federal Circuit affirmed the ITC, *Akzo N.V. v. International Trade Commission*, 808 F.2d 1471, 1479 (Fed. Cir. 1986): " We understand that opinion as simply finding that the prior art [Monsanto] referenced did not disclose to one of ordinary skill in the art the [Kevlar] process for making the aramid process of claim 13".

The In re Aramid Fibers / Akzo N.V. v. ITC case holds for the proposition that where an alleged process publication disclosing parts of an applicant's process fails to provide one of ordinary skill in the art (a) the motivation to choose between its teachings the elements to perform applicants' process invention, and (b) does not disclose applicants' surprising results, the reference is nonenabling under 35 U.S.C. §112 and cannot be deemed as placing one of ordinary skill in possession of the claimed process invention, and is non-anticipatory and further does not render the claimed process invention obvious. Reissue applicants submit it is the law in this country. As the '025 patent application does not teach the problems of WIMS, nor the solutions, and does not even incorporate by reference the WIMS patent, its pithy process teachings, it falls within the scope of In re Aramid Fibers and the Akzo N.V. case.

VI.

Claims 7-8, 21, 26-27 and 39-41 Are Not Obvious in View of DeMoore

Absent a teaching of the problems of the prior art to be overcome absent a teaching of the benefits of applicants' process, and absent incorporation of WIMS '976, the very best that can be said of the pithy process elements purportedly disclosed in EP 741,025 and Ser. No. 08/435,798 is that it made an incomplete suggestion to the artisan to try flexography first. We say "best", because the problems behind the '363 invention were not disclosed, the surprising results and applicants' achievements were not disclosed, the WIMS patent was not incorporated, there was no motivation for the artisan to try the process, and last but not least, flexography and offset lithography were separate (and distant) printing arts in 1995.

"As of 1991, I do not recall flexographic applications existing in the offset lithographic art other than end-of-process applications. The arts were different. Flexography was used in the manufacture of boxes, bags and labels."

Bird Decl. ¶6. *Reissue applicants contend their process was not even obvious to try in view of DeMoore Serial No. 08/435,798 or '025, even were it the '025 prior art, which it is not.* But "obvious to try" is not the law in this county. In re Dow Chemical Co., 837 F2d 469, 5 USPQ 1529 (Fed. Cir. 1988); In re Merck & Co., 800 F.2s 1091, 1097, 231 USPQ 375 (Fed. Cir. 1986). The "obvious to try" doctrine encompasses those situations such as this one - where, at best, suggestions are made "to explore a new technology or general approval that [seems] to be

a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." In re O'Farrell, 853 F.2d 894 7 U.S.P.Q. 1673, 1680 (Fed. Cir 1988), citing Dow above. There is no evidence from the '025 application that DeMoore recognized that putting the flexography step first would solve the problems described by reissue applicants. Note, In re Antonie, 559 F.2d 618, 195 U.S.P.Q. 6,8 (C.C.P.A. 1977).

Absent a teaching of the advantage of applicants' claimed invention and absent a teaching of the WIMS process, the artisan had little, if any, motivation to go to the expense and move a cantilevered add-on flexography unit forward in an offset lithography press in 1995 or modify an existing rack-back to do the same thing. "In hindsight, the only people anywhere in the world which have the motivation in 1994-5 to go 'upstream' with flexography in an offset / lithograph press would be a printer or manufacturer of inks or coatings, probably metallic inks or coatings." **Memorandum Exhibit B, Bird Decl**, ¶6. See also Supplemental Declaration of Prince, ¶¶11(6) and 11(7), **Exhibit A** (yellow tab), supra. "Selective hindsight is no more applicable to the design of experiments than it is to the [improper] combination of prior art teachings". Id. Even more, were the '025 prior art, which it is not, reissue applicants achieved surprising results.

VII.

Claims 42-87 Are Not Obvious in View of DeMoore EP 741,025

For the reasons given above, and for the fact that DeMoore teaches overprinting, not perfection, reissue applicants' claims 42-87 are also free of DeMoore. Note: Supplemental Decl. of Prince, ¶¶11(1)-11(7), **Exhibit A** (yellow tab) hereto.

VIII.

Apart from the Derivation Testimony, Reissue Applicants Eliminate the '713 Reference by Their Rule 131 Declaration

As part of **Exhibit E** (light green tab), and separate from their derivation, reissue applicants have also made the necessary averments under Rule 131 in order to eliminate the '713. Conception of the invention occurred in May, 1992. Reissue applicants have a corroborated conception -- a conception that occurred at least as early as June of 1994 that can be corroborated by third parties, testifying as to what was explained to them. See **Baker, Bird and Brown**

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Declarations and Reissue Applicants' Rule 131 Derivation Declaration ¶¶ 3, 5 and 11, **Memorandum Exhibits A-D**. Conceptions told to third parties orally can be recognized, as a matter of fact, by former PRI employees **Baker and Bird**. See Draeger v. Bradley, 156 F.2d 64, 66, 33 CCPA 1130, 1139, 70 USPQ 183, 185-6 (CCPA 1946); Giassladis v. Kass, 324 F.2d 322, 327, 139 USPQ 300, 304, 51 CCPA 753 (CCPA 1963); Schwartz v. Graenz, 81 F.2d 767, 28 USPQ 386, 23 CCPA 883, 897 (CCPA 1936). Written documents showing conception exist at least as early as November 18, 1994.

From the time reissue applicants ordered their new Heidelberg presses, they performed diligently every conceivable step in ordering flexographic plate-making equipment, simulating the invention conducting tests, ordering equipment to perform the process and performing patent work.

Reissue applicants engaged Printing Research, Inc. in the summer and fall of 1994 as one of two possible alternatives to construct equipment to help them reduce to practice their invention. See Rule 131 Declaration ¶¶ 6-12, corroborated by the **Bird and Baker** supplemental declaration. Reissue applicants simulated the invention in January, 1995 in Germany by an off-line process (performing the flexographic step first end-of-process, and then running the substrate back through in off-set flexography), and then again at their plant in Dallas in very early March 1995. They had a commercial simulation on or about March 20, 1995. The first reduction to practice occurred after their filing date, apparently by mid-September 1995. Between the two filing dates, they were drafting and redrafting their patent application. See the privilege log, Exhibit I to **Exhibit E** (light green tab) hereto. The requisites of 35 USC §102(g) and 37 CFR §1.131 have been met.

IX.

U.S. Patent No. 5,960,713 is Not Only Not Entitled to the Benefit of Serial No. 08/435,798, But it is Clearly Invalid Over EP 741 025 (A2) Published in Late 1996

Reissue applicants filed a Rule 14 Petition to obtain a copy of the file history of Serial No. 08/435,798 of which a majority of the prosecuted claims still stand rejected before the Board of Appeals. Reissue applicants finally obtained a copy of the 08/435,798 file history in early

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June 2000. A certified copy shows the following prior art and other information of record, many of which is present in this application and a number of which are discussed in the **Memorandum** (the most pertinent, in reissue applicants' opinion, were discussed ("**") in the **Memorandum** or presented in reissue applicants Information Disclosure Statement filed with the application ("***")):

| <u>Patent No.</u> | <u>Inventor</u> |
|-------------------|-----------------|
| 2,531,036 | Goettsch |
| 3,360,393 | Rhorer |
| 3,397,675 | DeLigt |
| 3,433,155 | Norton |
| 3,768,438 | Kumpf |
| 3,800,743 | Eqaczak |
| 3,916,824 | Knodel, et al. |
| 3,931,791 | Preuss, et al. |
| * 4,270,483 | Butler, et al. |
| 4,308,796 | Satterwhite |
| 4,372,244 | Rebel |
| 4,397,237 | Makosch |
| 4,399,767 | Simeth |
| * 4,421,027 ** | Fischer |
| 4,446,814 | Abendroth |
| 4,501,223 | Matsuno, et al. |
| 4,524,712 | Ito |
| 4,569,306 | Ito, et al. |
| 4,615,293 | Jahn |
| * 4,617,865 | Switall |
| * 4,685,414 | DiRico |
| * 4,706,601 | Jahn |
| * 4,796,556 ** | Bird |
| 4,815,413 | Kota |
| * 4,825,804 | DiRico, et al. |
| * 4,841,903 | Bird, et al |

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| <u>Patent No.</u> | <u>Inventor</u> |
|-------------------|------------------|
| 4,852,515 | Tebraska, et al. |
| 4,889,051 | Sarda |
| * 4,934,305 | Koehler, et al. |
| * 5,107,790 | Sliker, et al. |
| * 5,176,077 | DeMoore, et al. |
| * 5,178,678 | Koehler, et al. |
| 5,115,741 | Rodi |
| 5,209,179 | Herbert |
| 5,280,750 | Yoshida |
| * 5,335,596 | DeMoore, et al. |
| EP 647 524 (A1) | DeMoore, et al. |

Of the above-cited art, the following patents have been used in the Examiner's final and appeal rejection:

| <u>Patent No.</u> | <u>Inventor</u> |
|-------------------|-----------------|
| 2,531,036 | Goettsch |
| 3,360,393 | Rhorer |
| 4,685,414 | DiRico |
| 4,841,903 | Bird, et al. |
| 4,889,051 | Sarda |
| 4,934,305 | Koehler, et al. |
| 5,115,741 | Rodi |

Sarda U.S. Patent No. 4,889,051 appears to be the most pertinent reference in the Ser. No. 08/435,798 prosecution, in the opinion of that Examiner.

Process claims 24-34 were withdrawn early in the Serial No. 08/435,798 prosecution, without traverse. Only claims 6, 9, 18, 19 and 21 have been allowed and the remaining claims 1-5, 7-8, 10-17, 20, 22 and 23 remain rejected.

The file wrapper of U.S. Patent No. 5,960,713 shows art and/or 35 U.S.C. §112 first and second paragraph rejections of *all* claims on January 19, 1997, a *first* charge of counsel in June 1997, a final rejection of all claims on October 29, 1997, no consummated and argued appeal to

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the Board of Appeals, but a *second* charge of counsel in August 1998, and importantly, a rollover continuation-in-part application filed August 19, 1998, coupled with an insertion at what is now col. 16, lines 17-41 to avoid the examiner's earlier 35 U.S.C. §112, first paragraph rejections of certain claims, coupled with what reissue applicants contend is a false claim to the benefit of Serial No. 08/435,798.

Belatedly in late March 1999, the '713 applicants DeMoore, et al. admitted to knowing the existence of reissue applicants (Davis and Williamson's) U.S. Patent No. 5,630,363 "in December 1998 or January 1999" (Paper No. 11, Serial No. 09/136,901), but, again, did not bring it to the attention of the PTO until *after* the Notice of Allowance dated March 29, 1999 and after they had paid the issue fees, and without submitting any Rule 131 declaration to avoid the '363 patent as a reference.

EP 741,025 (A2) published in the fall of 1996, and more than one year prior to the filing date of the CIP (c. August 19, 1998), is clearly intervening prior art and because of DeMoore, et al.'s acquiescence in the failing to appeal to §112, first paragraph rejections in the prior prosecution (Serial No. 08/538,422). Tronzow Bionet, 156 F.3d 1154 (Fed. Cir. 1998); Chromalloy American Corp. v. Alloy Surfaces, 339 F. Supp. 859 (D. Del. 1972). DeMoore, et al. in the Declaration and Power of Attorney filed in August of 1998 did not even list the foreign counterpart application numbers, let alone their publication dates. DeMoore, et al. had filed in the EPO and Japan – publication countries. This is inexcusable for a patent applicant who had files over fifteen years many foreign applications and knows about oaths, CIPs, 18 month publications of foreign applications and the like.

Moreover, DeMoore, et al. failed to bring to the attention of the PTO in the '713 prosecution, EP 741,025 (A2) or its publication date in the fall of 1996. Note the acquiescence doctrine expounded in Akzona Inc. v. Pennwalt, *supra*.

U.S. Patent No. 5,960,713 is invalid over EP 741,025 (A2) and furthermore, is clearly unenforceable. Chromalloy American, *supra*. The last thing the '713 patent should be used for is a reference against any third party patent.

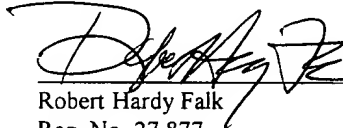
CONCLUSION

The testimony of expert Prince shows that the perfecting option is taught by the '363 patent.

All of the suggested changes to the specification and claims have been made by reissue applicants to put the claims in immediate condition for allowance. The evidence is clear from the combination of sworn testimony of **Baker, Bird, Brown and Garner** and reissue applicants that DeMoore derived whatever elements of reissue applicants' claimed invention from reissue applicants in July 1994, that reissue applicants simulated the invention in January 1995 - March 1995, that neither EP 741,025 (A2)/(A3) or their U.S. priority document can or should be relied on as prior art, and that the teaching of EP 741,025A2 toward reissue applicants' claimed process is so deficient as to be non-enabling and second, at best, obvious to try. Reissue applicants have, additionally, sworn behind the '713 patent pursuant to Rule 131. The '713 patent, by law, is removed as a reference.

Claims 1-87 are allowable and a paper to that effect would be appreciated.

Respectfully submitted,



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